

Walpole Diamond Hill Estates  
Dupee Street

# Traffic Review

September 21, 2020



# Project Location

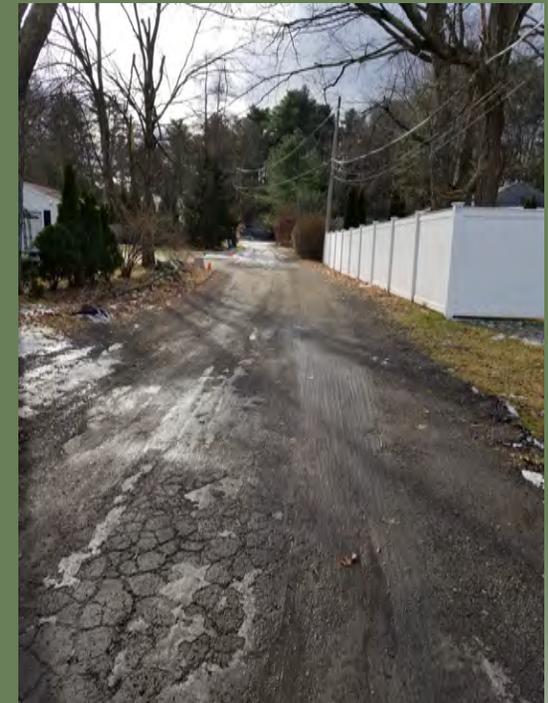


# Existing Conditions

- Dupee Street is currently unimproved, gravel and dead end serving several homes
- Currently intersects with High Plain Street located approximately 2,400 feet west of Route 1
- Operates as STOP control to High Plain Street
- Good visibility currently exists along High Plain Street



High Plain Street



Dupee Street

# Proposed Project

- 12 units of housing, 2 parking spaces per unit including garage space
- Street reconstructed to 20 feet in width
- Street remains dead end
- Intersection with High Plains includes relocation of utility pole, new ADA compliant sidewalk ramps, clearing of vegetation within public ROW
- Will have hammerhead turn around for fire apparatus and other larger vehicles to turn around and exit street

# Estimated Site Generated Traffic

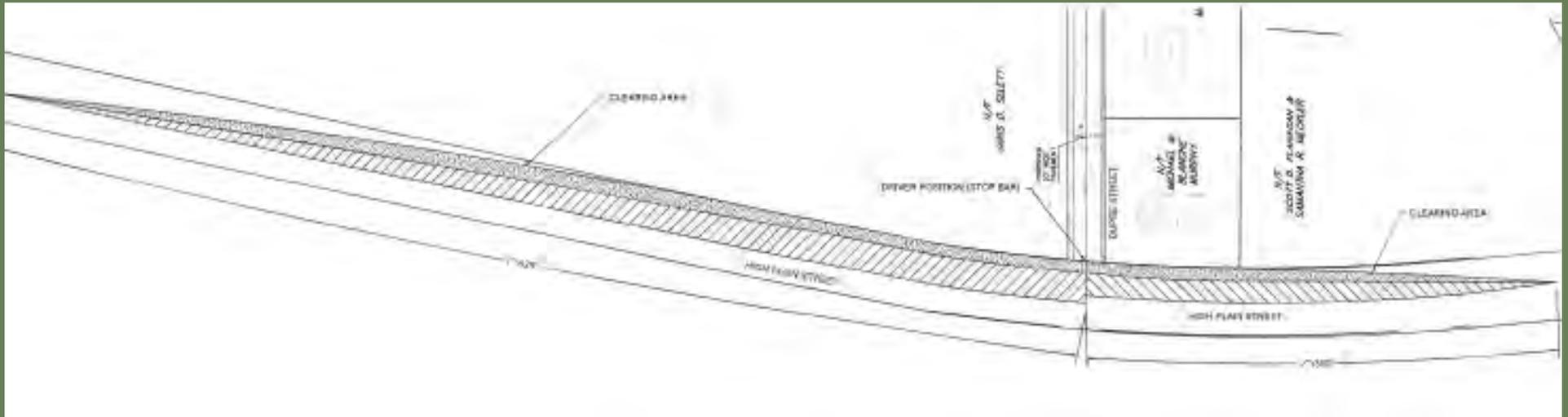
Time Period	Enter	Exit	Total
24 Hour Weekday	74	74	148
AM Peak Hour	3	10	13
PM Peak Hour	8	5	13

- Estimate based on Institute of Transportation Engineers (ITE) Trip Generation regression models – LUC 210 Single Family Homes
- Based on 12 units

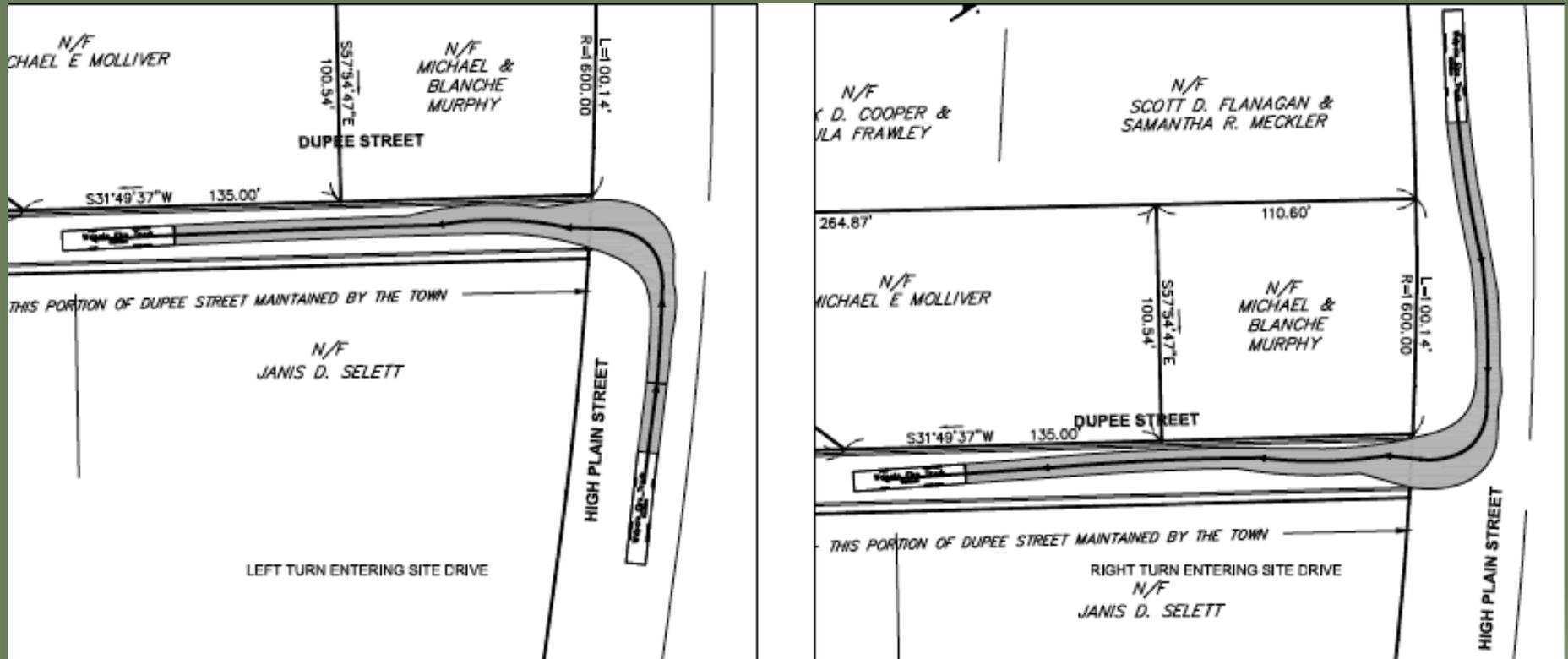
# Sight Distance Summary

		Measured (FT)	Required (FT)
<u>Stopping Sight Distance</u>			
From East		825	250
From West		400	250
<u>Intersection Sight Distance</u>			
Looking East		825	250
Looking West		350	250

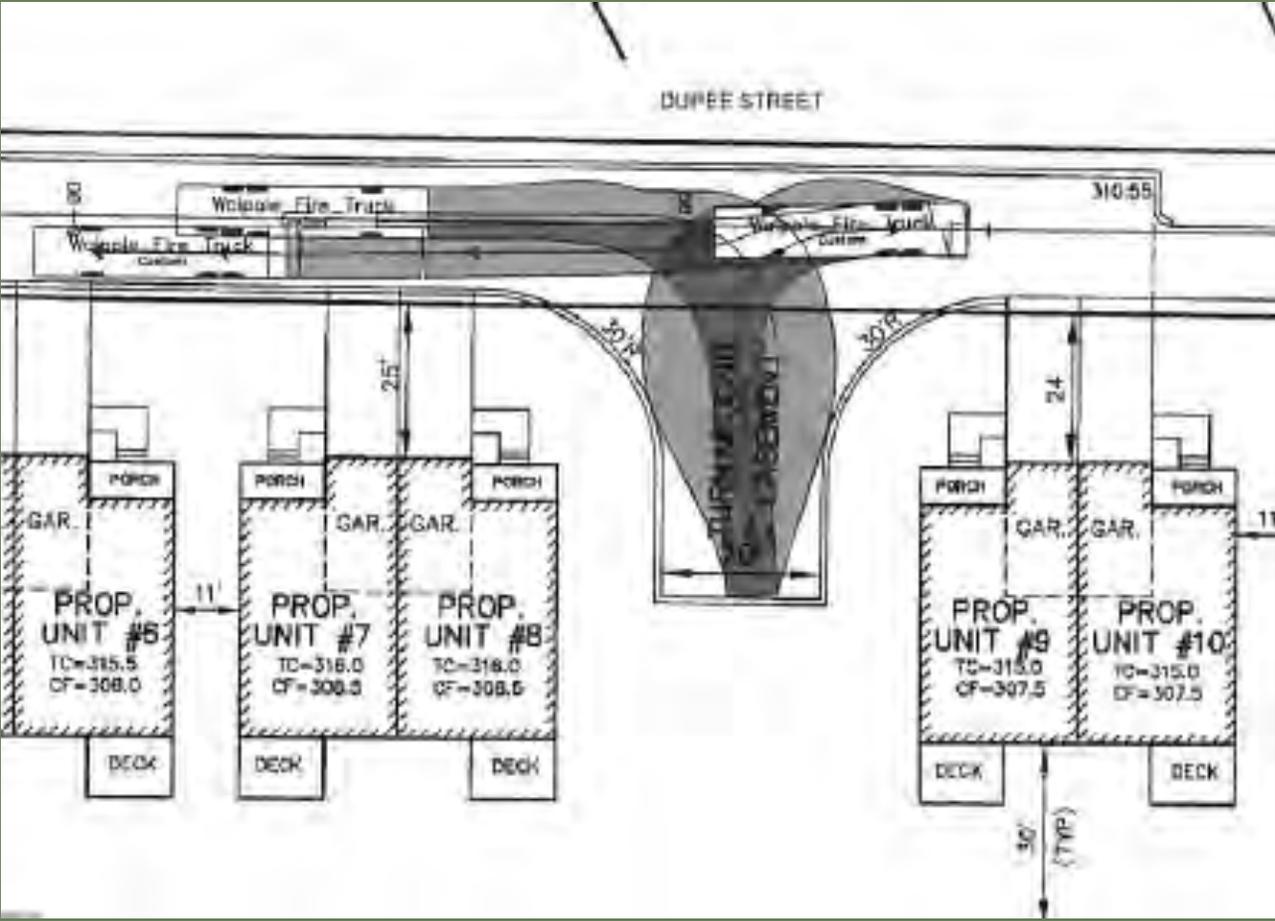
# Sight Line Triangle



# Fire Truck Movement



# Fire Truck Movement - Turnaround



# Conclusions

- Project is a small generator of trips with an estimated 13 vehicle trips generated during the peak hours – only 1 vehicle every 5 minutes.
- Proposed improvements to Dupee Street will accommodate safe access and movement.
- Fire truck access will be accommodated and hammerhead turnaround meets town standards.
- Adequate sight distances will continue to exist at the intersection with High Plan Street